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March 17, 2005

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CALIF ENERGY COMMISSION

MAR 1.7 2005

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Chuck Najarian Compliance Program California Energy Commission 1516 9th Street Sacramento CA 95814

Re: Amendment No. 1, Calpine Gilroy Cogen Project (84-AFC-4)

Dear Mr. Najarian:

On behalf of Calpine Gilroy Cogen, L.P., please find attached one original and 19 copies of Amendment No. 1 for the Calpine Gilroy Cogen Project (84-AFC-4).

If you have any questions about this matter, please contact Eugene Fahey at (831) 385-4090.

Sincerely

leffery D. Harris

Attachment

Calpine Gilroy Cogen Project

(84-AFC-4)

Amendment Number 1 (Recycled Water for Cooling Purposes)

Submitted by:

Calpine Gilroy Cogen, L.P.

March 2005

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INTRODUCTION

1.0 INTRODUCTION

1.1 OVERVIEW OF PETITION

Calpine Gilroy Cogen, L.P., a Delaware Limited Partnership ("CGC") as project owner hereby files this petition to amend the California Energy Commission ("CEC") Final Decision for its nominal 115 megawatt Calpine Gilroy Cogen Project (the "Cogen Project") located in the City of Gilroy, Santa Clara County. Specifically, the purpose of this Amendment is to allow the Cogen Project to use Title 22 quality recycled water from the South County Regional Wastewater Authority ("SCRWA") as the source of cooling water for the Cogen Project.

This Amendment affects only the cooling water supply for the Cogen Project. Well water will continue to be used for other purposes, including the process water and the service water requirements of the Cogen Project. In addition, although recycled water will be used for cooling water purposes, the existing well water supply will also serve as the backup cooling water supply, in the event that recycled water service is interrupted.

There will be very little new infrastructure required to allow the Cogen Project to use recycled water for cooling purposes. The Amendment will allow for the construction and operation of approximately one thousand (1000) feet of aboveground recycled water pipeline, approximately ten inches in diameter, traversing already disturbed and developed areas. All construction will take place within the property boundaries of Cogen Project and the Gilroy Energy Center ("GEC"), the peaker project approved by the Commission in 2001 (Docket Number 01-EP-8), that is owned by Gilroy Energy Center, LLC, a Delaware limited liability company.

1.2 NECESSITY OF PROPOSED CHANGES

Sections 1769 (a)(1)(B), and (C) of the Commission's Regulations require a discussion of the necessity for the proposed revision to the Cogen Project and whether the modification is based on information known by the petitioner during the certification proceeding. The proposed modifications are requested to allow the Cogen Project to take advantage of the availability of recycled water. CGC acquired the Cogen Project in 1996 after the original

All references to "Section" are to the Commission Regulations, 20 CCR 1001 et seq., unless otherwise noted.

INTRODUCTION

1985 certification. Thus, the Amendment is not based on information known to CGC during the original certification process.

1.3 CONSISTENCY OF CHANGES WITH LICENSE

Section 1769(a)(1)(D) requires a discussion of the consistency of the proposed project revision with the applicable laws, ordinances, regulations and standards ("LORS") and whether the modifications are based upon new information that changes or undermines the assumptions, rationale, findings, or other basis of the final decision. If the project is no longer consistent with the license, an explanation why the modification should be permitted must be provided.

The use of recycled water in lieu of well water as the source of cooling water for the Cogen Project is consistent with applicable LORS and the CEC's Final Decision for the project. Further, although the CEC determined that the Cogen Project's use of well water for cooling purposes does not result in any significant impacts, this Amendment is environmentally beneficial since the Cogen Project would no longer use well water for its cooling, except as a back-up to recycled water if it is temporarily unavailable.

The Amendment is not based upon new information that changes or undermines any basis for the CEC's Final Decision. The findings and conclusions contained in the Commission Decision for the Cogen Project are still applicable to the Cogen Project as modified.

1.4 SUMMARY OF ENVIRONMENTAL IMPACTS

Section 1769 (a)(1)(E) requires an analysis to address the impacts of proposed project modifications on the environment and the proposed measures to mitigate any significant adverse impacts. In addition, Section 1769 (a)(1)(F) requires a discussion of the impact of proposed modifications on the Gilroy Cogen's ability to comply with applicable LORS. Section 3.0 of this Petition includes a discussion of the potential impacts of the proposed changes on the environment. It also includes a discussion of the applicability of existing and proposed mitigation measures, as well as a discussion of the consistency of the proposed modifications with applicable LORS.

DESCRIPTION OF PROJECT CHANGES

2.0 DESCRIPTION OF PROJECT CHANGES

In compliance with Section 1769(a)(1)(A), this section of the Petition includes a description of the proposed project modification, as well as a discussion regarding the necessity for the changes.

2.1 PROPOSED PROJECT CHANGES

In its Final Decision (84-AFC-4) dated November 13, 1985, the CEC approved the Application for Certification filed by Gilroy Energy Company, a wholly-owned subsidiary of Gilroy Foods, Inc. In 1996, CGC purchased the facility from the original applicant ("Gilroy Cogen").

As described in Section 1.0 of this Amendment, the proposed project changes are minimal. As originally certified, the vast majority of the water supply needs of the Cogen Project are met through the use of on-site wells and an associated water piping system. The three primary uses for the well water produced on site are the following: (1) cooling water supply, which makes up the bulk of the water used by the Cogen Project; (2) process water, which is treated by reverse osmosis and demineralizers for use in the steam cycle; and (3) service water used for purposes such as eye washes, domestic uses, and washing down equipment. Bottled water is used as drinking water. The Cogen Project supplies the adjacent GEC with process and service water as described above under a Shared Facilities Agreement executed May 10, 2002. GEC uses Title 22 water for its cooling tower makeup. This project will have no impact on the Gilroy Energy Center operation.

This Amendment affects only the first of these three water supplies, the cooling water supply. Recycled water delivered from the SCRWA will be used for cooling purposes. Well water will continue to be used for the process water and the service water requirements of the Cogen Project. In addition, although recycled water will be used for cooling water purposes, the existing well water supply will also serve as a backup cooling water supply, in the event that recycled water service is interrupted.

There will be very little new infrastructure required to allow the Cogen Project to use recycled water for cooling purposes. Specifically, this Amendment seeks approval for the construction of approximately one thousand (1000) feet of aboveground recycled water pipeline. This above ground pipe will be approximately ten inches in diameter.

DESCRIPTION OF PROJECT CHANGES

SCRWA's recycled water facilities already serve as the cooling water supply for GEC. As depicted in redlined-drawing P550006 attached hereto, the new recycled water line will connect to the existing twelve (12) inch recycled water line at the south east corner of the GEC's property. This existing SCWRA pipeline has sufficient capacity to serve the cooling water needs of the Cogen Project and GEC.

The alignment for the recycled water line is shown in redlined-drawing P550006 attached hereto. The recycled water line will be parallel to the east side fence above ground. The line will run underground only under the existing fire department access driveway. At Gilroy Cogen, an above-ground meter will be installed and the line routed from the meter over to the Gilroy Cogen cooling tower. The existing level control valve will be used to control water level in the cooling tower. The construction of this pipeline will employ approximately 4-6 workers, and take less then 3 weeks to complete. All work will take place within the property boundaries of Gilroy Cogen and GEC project sites.

ENVIRONMENTAL ANALYSIS OF THE PROPOSED CHANGES

3.0 ENVIRONMENTAL ANALYSIS OF THE PROPOSED CHANGES

Sections 1769(a)(1)(E) and (F) require that the following environmental information regarding proposed changes be addressed as part of any post-certification Petition for modification:

- An analysis of the impacts the modifications may have on the environment and proposed measures to mitigate any significant adverse impacts (Section 1769(a)(1)(E)).
- A discussion of the impact of the modifications on the facility's ability to comply with applicable LORS (Section 1769(a)(1)(F)).

The analysis is organized by environmental discipline in Sections 3.1 through 3.15. These disciplines are the same the CEC examines in reviewing Applications for Certification. In summary, the proposed Amendment will not cause any significant unmitigated impacts to the environment, the public, or the adjacent property owners.

3.1 AIR QUALITY

The recycled water line is not an emission source. In addition, the licensed cooling tower drift rate of 240 lb/hr maximum and the maximum PM₁₀ emissions rate of 0.72 lb/hr will be maintained. As a result, any potential air quality impacts associated with this Amendment would be less than significant. Accordingly, the Amendment will not affect any applicable air quality standards or emission limits from Gilroy Cogen.

Most of the work required will be routing pipe. A small crew of 4-6 people with weld rigs and a High Density Poly Ethylene (HDPE) pipe welding machine is anticipated. For the short underground distance at the existing fire department access (~30') a backhoe will be used with a hand-operated compactor. The entire duration for piping is expected to take less then 3 weeks. Because the pipeline will be installed above ground, potential fugitive dust will be minimized. Dust suppression measures, including watering, will be utilized as conditions warrant. Tail-pipe emissions will be minimized by limiting the amount of engine idling, maintaining construction equipment to the manufactures specification, and limiting the number of construction equipment used for the above-ground pipe installation. The construction-related impacts will be temporary in nature and will thus be less than significant. Similarly, since there will be no emission associated with the operation of the

ENVIRONMENTAL ANALYSIS OF THE PROPOSED CHANGES

recycled water pipeline and the cooling tower drift will not change, the potential impacts from operation of the recycled water line are less than significant, and the recycled water line will be constructed and operated consistent with the Commission's Final Decision and applicable LORS.

3.2 PUBLIC HEALTH

The construction of the recycled water pipeline will not result in any significant public health impacts. The construction related impacts are temporary in nature, and, as discussed in the air quality section above, will not be significant. The operation of the recycled water line will not result in any emissions, let alone any significant airborne toxic emissions that might pose a threat to public health, nor will it undermine the basis of the CEC's approval of the Cogen Project. Further, consistent with requirements of recent CEC decisions, this Amendment proposes Condition of Certification, PH-1 requiring submission of a Cooling Water Management Plan to the CPM for review and approval. (See Section 4 for proposed Condition PH-1.) Accordingly, the potential impacts on public health are less than significant, and the recycled water line will be constructed and operated consistent with the Commission's Final Decision and applicable LORS.

3.3 NOISE

There are no noise-related impacts associated with the operation of the recycled water pipeline. In fact, the overall noise profile may improve slightly, since the on-site wells will not have to run as often when recycled water is supplied. The construction of the recycled water pipeline will not result in a significant increase in noise beyond the Cogen Project boundary and will not impact the nearest public receptor. Construction activities would be during normal business hours and thus would have no potential for any off site noise consequences. The construction-related impacts will be temporary in nature and will thus be less than significant, and the recycled water line will be constructed and operated consistent with the Commission's Final Decision and applicable LORS.

3.4 SOILS AND WATER RESOURCES

The use of recycled water will reduce the demand for on-site well water. It is expected that the availability of recycled water will reduce the demand for ground water withdrawn from the water wells on Gilroy Cogen from approximately 800-1,000 gpm to approximately 350 gpm. Reducing the volume of water extracted from the wells will not have any significant

ENVIRONMENTAL ANALYSIS OF THE PROPOSED CHANGES

impact on the groundwater quality or its hydrology and will have a beneficial, localized effect on the aquifer of reducing localized groundwater pumping. The Title 22 quality recycled water is anticipated to be of the same or better quality than the groundwater it would be replacing and will be as a reliable a source as that from the wells. As a result, any potential Water Resources impacts associated with this Amendment would be less than significant.

As to impacts on soils, the majority of the recycled water pipeline will be installed above ground. For the short underground distance at the existing fire department access (~30') a backhoe will be used with a hand-operated compactor. These soils are previously disturbed and no significant impacts on soils will result. Accordingly, the potential impacts are less than significant, and the recycled water line will be constructed and operated consistent with the Commission's Final Decision and applicable LORS.

3.5 WASTE MANAGEMENT

The construction of the recycled water line may result in the generation of small quantities of hazardous and non-hazardous waste. The hazardous waste may include spent lubricants, solvents, paints, and welding materials. The non-hazardous waste may be in the form of packing materials, waste wood, paper, and plastic. The construction of the recycled water pipeline is not expected to generate significant qualities of either hazardous or non-hazardous waste.

Hazardous wastes from construction of the recycled water line will not be stored on site. These materials will be transported to and from the site in compliance with applicable LORS. Non-hazardous wastes will be handled in accordance with applicable LORS, and disposed of by licensed waste handlers. Small quantities of materials such as empty cans, rags, and similar waste may be generated and disposed as non-hazardous solid waste in the Gilroy Cogen's solid waste stream sent off-site for disposal at a Class III landfill. Wastewater from hydrostatic testing of the pipelines will be disposed of in compliance with applicable LORS. Water will be non-hazardous, Title 22 water. All hydrostatic testing water can be utilized in the cooling tower during the initial fill. The construction related waste management impacts will be temporary in nature and will thus be less than significant. The operation of the pipelines will require periodic maintenance and is not expected to generate significant waste materials and thus will also be less than significant, and the recycled water line will be constructed and operated consistent with the Commission's Final Decision and applicable LORS.

ENVIRONMENTAL ANALYSIS OF THE PROPOSED CHANGES

3.6 HAZARDOUS WASTE MANAGEMENT

This Amendment would not result in any modifications to the Cogen Project's chemical inventory and would not result in any potential impacts any greater than those analyzed by the Commission during licensing. As a result, any potential impacts associated with this Amendment would be less than significant.

3.7 GEOLOGY AND PALEONTOLOGY

The proposed Amendment would not result in potential impacts to Geology Resources greater than those analyzed by the Commission during licensing. The proposed modification has the potential to impact paleontological resources only during the short underground section of the recycled water pipeline. However, this underground area was previously disturbed when the existing fire access road was installed. Accordingly, the potential impacts on paleontological resources are less than significant, and the recycled water line will be constructed and operated consistent with the Commission's Final Decision and applicable LORS.

3.8 BIOLOGICAL RESOURCES

The Amendment will not significantly affect Biological Resources and will not undermine the basis for the CEC's approval of the Cogen Project. The recycled water line will be constructed through previously disturbed areas that are industrial in nature. The entire area is graveled for industrial uses, except for a short paved section where the recycled water line will be routed under the existing fire department access drive way, and no habitat suitable for any special status species exists along the route for the recycled water pipeline. Accordingly, the potential impacts on biological resources are less than significant, and the recycled water line will be constructed and operated consistent with the Commission's Final Decision and applicable LORS.

3.9 LAND USE

The installation of recycled water pipeline is consistent with existing and planned land uses in this area. Surrounding uses are predominately industrial. The proposed modification would not result in potential impacts greater than those analyzed by the Commission during licensing. As a result, any potential Land Use impacts associated with this Amendment

ENVIRONMENTAL ANALYSIS OF THE PROPOSED CHANGES

would be less than significant, and the recycled water line will be constructed and operated consistent with the Commission's Final Decision and applicable LORS.

3.10 VISUAL RESOURCES

The recycled water line would be built in an existing site that is a part of the industrial complex created by Gilroy Foods, the Cogen Project, and GEC. This area is flat and graveled for industrial uses (except for a short paved section where the recycled water line will be routed under the existing fire department access drive way) with a vegetative screen along the highway; the site does not contain any elements that would be considered to be a scenic resource. As a result, any potential Visual Resource impacts associated with this Amendment would be less than significant, and the recycled water line will be constructed and operated consistent with the Commission's Final Decision and applicable LORS.

3.11 SOCIOECONOMICS

Construction of the recycled water line could result in a slight increase in local purchases of materials and a slight increase in local construction labor. This increase could provide some economic benefits to the community. As a result, any potential Socioeconomic impacts associated with this Amendment would be somewhat beneficial, and certainly less than significant, and the recycled water line will be constructed and operated consistent with the Commission's Final Decision and applicable LORS.

3.12 TRAFFIC AND TRANSPORTATION

The minor construction effort to construct the aboveground recycled water line will require approximately 4-6 workers, and take less then 3 weeks to complete. All work is proposed to take place within the property boundaries of Gilroy Cogen and GEC. Local traffic would not have to be re-routed since the construction effort is limited and the entire site is on private property with private access roads to the main public road. The minor amount and type of equipment (i.e., back-hoe, HDPE welding machine, hand operated compactor) required along with workers will not appreciably affect normal traffic flow.

Since the construction workforce required to install the recycled water pipeline would be small and of short duration, the proposed modification would not result in a significant increase in the construction workforce; and therefore, potential impacts would not be significant. As a result, any potential Traffic and Transportation impacts associated with this

ENVIRONMENTAL ANALYSIS OF THE PROPOSED CHANGES

Amendment would be less than significant, and the recycled water line will be constructed and operated consistent with the Commission's Final Decision and applicable LORS.

3.13 CULTURAL RESOURCES

The recycled water line will be run aboveground and will require small pedestal supports approximately every 10 to 15 feet. The supports will be approximately 12" in diameter X 18" deep. The line will run underground only around the existing fire department access drive way (~30' distance). The engineered fill is approximately eighteen inches deep. The length of pipe run is entirely on previously disturbed on-site property of the Cogen Project and GEC. As a result, any potential Cultural Resources impacts associated with this Amendment would be less than significant.

3.14 WORKER SAFETY AND FIRE PROTECTION

All workers will undergo safety training. The fire protection systems available for the ongoing operation of the facility remain available during the brief construction period. As a result, any potential Worker Safety and Fire Protection impacts associated with this Amendment would be less than significant.

3.15 CUMULATIVE IMPACTS

The construction of the recycled water line will take place entirely within the property of the existing Cogen Project and GEC. The Cogen Project has no plans for any similar projects, and no similar projects are known to be contemplated in the vicinity of the recycled water line construction. Recycled water is available from SCRWA, and the Cogen Project's use of recycled water may be considered beneficial from a cumulative impacts perspective because it will reduce the overall pumping of groundwater in the vicinity of the Cogen Project. Moreover, as described in this Amendment, the recycled water line will be constructed and operated such that it will not create any significant direct, indirect, or cumulative adverse impacts. Accordingly, the potential cumulative impacts of the Cogen Project are less than significant.

AFFECTED ENVIRONMENT

4.0 PROPOSED MODIFICATIONS TO CONDITIONS OF CERTIFICATION

Consistent with the requirements of Section 1769 (a)(1)(A), this section addresses proposed modifications or additions to the Cogen Project's Conditions of Certification. As a result of the Cogen Project's use of recycled water, the following conditions of certification should be added to the Commission's Final Decision.

Water Resources

To reflect the use of recycled water for cooling water purposes, CGC proposes a new condition of certification, Condition Water Resources 3.

"3. Recycled water from SCRWA will be used at the Cogen Project for cooling purposes. Water from the on-site well system may be used as a back up supply for cooling purposes in the event that SCWRA recycled water service is interrupted."

<u>Verification</u>: Recycled water from SCRWA will be used at the Cogen Project for cooling purposes. Water from the on-site well system may be used as a back up supply for cooling purposes in the event that SCWRA recycled water service is interrupted. The project owner shall notify the CPM in writing if recycled water from the SCRWA is unavailable for more than thirty (30) consecutive days.

Public Health

Consistent with requirements of recent CEC decisions, this Amendment proposes Condition of Certification, PH-1 requiring submission of a Cooling Water Management Plan to the CPM for review and approval. (See Section 4 for proposed Condition PH-1.)

PH-1: The project owner shall develop and implement a Cooling Water Management Plan to ensure that the potential for bacterial growth in cooling water is kept to a minimum. The Plan shall be consistent with either Staff's "Cooling Water Management Program Guidelines" or with the Cooling

AFFECTED ENVIRONMENT

Technology Institute's "Best Practices for Control of Legionella" guidelines.

Verification: Within 30 days of approval of the amendment to use recycled water for cooling purposes, the project owner shall provide the Cooling Water Management Plan to the CPM for review and approval.

POTENTIAL EFFECTS ON THE PUBLIC

5.0 POTENTIAL EFFECTS ON THE PUBLIC

Consistent with Section 1769(a)(1)(G), this section includes a discussion of how the proposed project modification would affect the public.

The proposed Petition to modify the design of the Cogen Project will not negatively impact the public. In fact, it is a long-term benefit to the public because this proposal reduces demand on ground water and replaces that demand by the use of recycled water from SCRWA. The short-term recycled water line construction will also provide 4-6 temporary construction jobs.

POTENTIAL EFFECTS ON PROPERTY OWNERS

6.0 POTENTIAL EFFECTS ON PROPERTY OWNERS

Consistent with Section 1769(a)(1)(I), the following section addresses potential effects on nearby property owners, the public, and parties in the application proceedings.

All work will take place within the property boundaries of the Cogen Project and the GEC project sites. Accordingly, the Amendment will not affect nearby property owners.

LIST OF PROPERTY OWNERS

7.0 LIST OF PROPERTY OWNERS

Consistent with Section 1769 (a)(1)(H), this section lists the property owners potentially affected by the proposed modification.

The proposed Petition for minor modification will not effect nearby property owners.

As described in this Amendment, the Cogen Project's use of recycled water will not adversely affect neighboring property owners. All work will take place within the property boundaries of the Cogen Project and GEC project sites. Therefore, no property owners will be affected by the Amendment.

